

# Graywater

## Region needs to maximize water reuse

By Claude A. “Bud” Lewis

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**A recent Water Authority public opinion survey showed that support for using recycled water as part of the drinking water supply has increased substantially – from only 28 percent favoring it in 2005 to 63 percent in 2009.**

*As the San Diego region attempts to enhance its water supply by diversifying sources, is reliability by diversifying its imported and local water sources, its reclamation plants are putting more than half of their capacity back into the sewer system.*

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There is no single “silver bullet” that will meet the San Diego region's future water needs. That is why the San Diego County Water Authority and its 24 member retail agencies are working aggressively to enhance water supply reliability by diversifying our imported and local water sources.

In order to maximize local supplies, we are pursuing all options, including tapping groundwater, implementing seawater desalination and increasing water-use efficiency. We also must reuse as much water as we can, by expanding nonpotable water recycling operations and by incorporating indirect potable reuse into our water supply.

The region already has made significant investments in providing nonpotable recycled water (using biological, filtration and disinfection processes known as “tertiary treatment”) to many parts of San Diego County. In fiscal year 2008, local water agencies supplied more than 25,000 acre-feet of recycled water. (An acre-foot is enough water to meet the annual needs of two average households.)

The city of San Diego's water recycling program, for example, beneficially reused more than 6,000 acre-feet during fiscal year 2008. It supplied another 4,000 acre-feet to neighboring water agencies such as the Otay Water District, which has an extensive recycled water system with

more than 4,600 acre-feet of annual sales. Carlsbad's recycled water system delivers approximately 5,000 acre-feet annually. Nearby, Vallecitos Water District's expansion to its Meadowlark Water Reclamation Facility will deliver a total of 5,000 acre-feet yearly to the Carlsbad Municipal Water District and Olivenhain Municipal Water District. The Padre Dam Municipal Water District recycling facility's 2,200 acre-feet capacity provides water for irrigation and recreational purposes in East County.

In all, 17 Water Authority member agencies have recycled water projects. By 2012, these agencies plan to use more than 32,000 acre-feet of recycled water annually. The Water Authority projects the recycled water supply to grow to 53,000 acre-feet by 2020.

To maximize regional recycled water use, however, we must also incorporate indirect potable reuse into our supply portfolio.

In IPR, tertiary treated water undergoes additional treatment through reverse osmosis and ozone/ultraviolet disinfection. It then spends time in a groundwater basin or surface water reservoir before receiving additional treatment to meet drinking water standards.

It is very safe, and nothing new. Several water agencies in Los Angeles County have recharged their groundwater basins this way since the 1960s.

IPR projects have started locally. The city of San Diego is proceeding with an \$11.8 million, one-year demonstration project to evaluate using advanced treated recycled water to augment drinking water supplies in San Vicente Reservoir. Padre Dam and the Helix Water District are planning to produce 5,000 acre-feet of potable water by using highly purified recycled water to recharge the groundwater basin in El Monte Valley.

Implementing IPR requires public acceptance. San Diego County residents are increasingly willing to support IPR. A recent Water Authority public opinion survey showed that support for using recycled water as part of the drinking water supply has increased substantially – from only 28 percent favoring it in 2005 to 63 percent in 2009.

There is no single solution to ensuring a safe and reliable water supply for San Diego County – diversification is required. And, that diversification must include expansion of recycled water use, for both nonpotable and potable uses.

*Lewis is San Diego County Water Authority chairman of the board and mayor of the city of Carlsbad.*